

**Grade 4 CRT Item Specifications****“Enduring and Important Knowledge” identified in previous grade-levels may be included within the context of some problems.**

Prioritized Standards	Knowledge/Skills Assessed	Item Specifications
<p><b>1.4.1</b> Immediately recall and use multiplication and division facts through 12s. (C )</p> <p><b>1.3.2</b> Add and subtract multi-digit numbers with regrouping. (P)</p> <p><b>1.4.3</b> Generate and solve two-step multiplication and division problems based on practical situations using pencil and paper, mental computation, and estimation. (PS)</p> <p><b>1.4.4</b> Multiply and divide money amounts by a one-digit whole number producing a solution with no remainder. (P, PS)</p> <p><b>1.4.5</b> Multiply and divide multi-digit numbers by a one-digit number with regrouping; model and explain division including as repeated subtraction. ((P, PS)</p> <p><b>1.4.6</b> Read, write, order, and compare whole numbers. (C, P)</p> <p><b>1.4.7</b> Use estimation to determine the reasonableness of an answer. (C, P, PS)</p> <p><b>1.4.8</b> Use and identify place value positions of whole numbers. (C )</p> <p><b>1.4.9</b> Identify and compare fractions with like denominators using numbers, models, and drawings. (C )</p>	<p><b>1.4.1</b> Recall multiplication and division facts through 144.</p> <p><b>1.4.6</b> Read and write whole numbers.</p> <p><b>1.4.7</b> Round number values to a given place value.</p> <p><b>1.4.8</b> Identify place value positions of whole numbers up through 9,999,999.</p> <p><b>1.4.9</b> Identify and compare fractions with like denominators using numbers, models, and drawings.</p>	<p><b>1.4.1</b> Items limited to multiplication and corresponding division facts to 12 x 12.</p> <p><b>1.4.6</b> Limited up to 999,999.</p> <p><b>1.4.7</b> Numbers can not be rounded above 999,999.</p> <p><b>1.4.8</b> Items may ask a student to identify a place value or represent a standard-form numeral in expanded form and vice-versa.</p>
	<p><b>1.3.2</b> Add and subtract multi-digit numbers with regrouping.</p> <p><b>1.4.4</b> Compute products and quotients involving money.</p> <p><b>1.4.5</b> Multiply and divide multi-digit numbers by a one-digit number with regrouping.</p> <p><b>1.4.6</b> Compare and order whole numbers.</p> <p><b>1.4.7</b> Use estimation to determine the reasonableness of an answer.</p>	<p><b>1.3.2</b> Sums limited to 999. Whole numbers limited to 0 – 999 for subtraction.</p> <p><b>1.4.4</b> Straight computation without context</p> <p><b>1.4.5</b> Items limited to multiplication and division of multi-digit numbers by a one-digit number. Product and dividend limited to 999,999. Operation is given and question is straight forward with <u>little context</u>.</p> <p><b>1.4.6</b> Limited up to 999,999.</p> <p><b>1.4.7</b>. Estimate can not exceed 999,999.</p>
	<p><b>1.4.3</b> Generate and solve two-step multiplication and division problems based on practical situations</p> <p><b>1.4.4</b> Multiply and divide money amounts by a one-digit whole number producing a solution with no remainder.</p> <p><b>1.4.5</b> Multiply and divide multi-digit numbers by a one-digit number with regrouping in a contextual real-world problem.</p> <p><b>1.4.7</b> Use estimation to determine the reasonableness of an answer in problem solving situations.</p>	<p><b>1.4.3</b> Items limited to multiplication and division of multi-digit numbers by a one-digit number. Product and dividend limited to 999,999. May involve an addition or subtraction of a number fact as part of the problem but <u>answer choice’s</u> can not reflect an addition or subtraction error.</p> <p><b>1.4.4</b> Money problems should be contextual real-world problems.</p> <p><b>1.4.5</b> Items limited to multiplication and division of multi-digit numbers by a one-digit number. Product and dividend limited to 999,999. Limited to one-step problems only.</p> <p><b>1.4.7</b>. Estimate can not exceed 999,999.</p>

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Prioritized Standards		Knowledge/Skills Assessed	Item Specifications
<p><b>2.4.1</b> Identify, describe, and represent numeric and geometric patterns and relationships. (C, P, PS)</p> <p><b>2.3.3</b> Identify missing terms and missing numbers in open number sentences involving number facts in addition and subtraction. (C)</p> <p><b>2.3.4</b> Complete number sentences with the appropriate words and symbols for addition, subtraction, less than, greater than, and equal to (+, -, &lt;, &gt;, =). (C, P)</p>	Concepts	<p><b>2.4.1</b> Identify numeric and geometric patterns and relationships.</p> <p><b>2.3.3</b> Identify missing terms and missing numbers in open number sentences involving number facts in addition and subtraction.</p> <p><b>2.3.4</b> Complete number sentences with the appropriate symbols to compare two numbers. Identify correct values or symbols to make number sentences true.</p>	<p><b>2.4.1</b> Complete the basic numeric or simple geometric pattern by finding the missing term.</p> <p><b>2.3.3</b> Addition and corresponding subtraction facts limited to sums to 24. Limited to one operation only, no variables.</p> <p><b>2.3.4</b> Items should use number sentences involving the following appropriate words and symbols for addition, subtraction, less than, greater than, and equal to (+, -, &lt;, &gt;, =, ^). Items may ask students to compare two basic number facts. (Example: <math>2 + 4 \square 6 + 4</math>)</p>
	Procedures	<p><b>2.4.1</b> Identify, describe, and represent numeric and geometric patterns and relationships.</p> <p><b>2.3.4</b> Complete number sentences with the appropriate words and symbols for addition, subtraction, less than, greater than, and equal to (&lt;, &gt;, =, ^).</p>	<p><b>2.4.1</b> Extend the basic numeric or simple geometric pattern.</p> <p><b>2.3.4</b> Items limited to number sentences using the following symbols: (&lt;, &gt;, =, ^).</p>
	Problem Solving	<p><b>2.4.1</b> Identify, describe, and represent numeric and geometric patterns and relationships.</p>	<p><b>2.4.1</b> Create a pattern using a straight forward one-step rule or describe the rule used to create the pattern.</p>

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Prioritized Standards		Knowledge/Skills Assessed	Item Specifications
<p><b>3.4.2</b> Measure and compare length in inches, feet, yards, and miles (1/2, 1/4); measure and compare lengths in metric units (millimeter, centimeter, meter, and kilometer); convert within each system. (C, P, PS)</p> <p><b>3.4.3</b> Communicate the differences between perimeter and area; describe and determine the perimeter of polygons and the area of rectangles (including squares). (P, PS)</p> <p><b>3.4.4</b> Determine totals for monetary amounts in problem-solving situations. (P, PS)</p> <p><b>3.3.6</b> Tell time to the nearest minute, using analog and digital clocks, and identify elapsed time. (C, P, PS)</p>	Concepts	<p><b>3.4.2</b> Compare length in customary units or in metric units.</p> <p><b>3.3.6</b> Tell time to the nearest minute, using analog and digital clocks.</p>	<p><b>3.4.2</b> Customary units are limited to the use of inches, feet, yards, and miles (1/2, 1/4). Metric units are limited to the use of millimeters, centimeters, meters, and kilometers.</p> <p><b>3.3.6</b> Item must include a diagram of an analog or digital clock.</p>
	Procedures	<p><b>3.4.2</b> Measure to the required degree of accuracy. Convert measures within each system.</p> <p><b>3.4.3</b> Describe and determine the perimeter of polygons and the area of rectangles (including squares).</p> <p><b>3.4.4</b> Determine totals for monetary amounts.</p> <p><b>3.3.6</b> Tell time to the nearest minute, using analog and digital clocks, and identify elapsed time.</p>	<p><b>3.4.2</b> Measure to the nearest ½ inch. Comparisons and conversions of length measurements are limited to the following: customary units are limited to the use of inches, feet, yards, and miles; metric units are limited to the use of millimeters, centimeters, meters, and kilometers. Compare length in metric units without using decimals.</p> <p><b>3.4.3</b> Diagrams must be grided for <b>area problems only</b> to show the number of square units in the figure.</p> <p><b>3.4.4</b> Items may involve both the use of coins and/or currency. No diagrams.</p> <p><b>3.3.6</b> Items must include start time and amount of elapsed time. Students must calculate the end time.</p>
	Problem Solving	<p><b>3.4.2</b> Compare and convert measures within each system.</p> <p><b>3.4.3</b> Communicate the differences between perimeter and area; describe and determine the perimeter of polygons and the area of rectangles (including squares).</p> <p><b>3.4.4</b> Determine totals for monetary amounts in problem-solving situations.</p> <p><b>3.3.6</b> Identify elapsed time.</p>	<p><b>3.4.2</b> Items limited to <u>constructed response</u> only.</p> <p><b>3.4.3</b> Diagrams must be grided for <b>area problems only</b> to show the number of square units in the figure.</p> <p><b>3.4.4</b> Items may involve both the use of coins and/or currency that can be used to represent a given amount. No diagrams.</p> <p><b>3.3.6</b> Multiple choice items may give both start and finish time and ask students to calculate elapsed time. Some items may ask students to calculate the beginning time when given the finish time and the elapsed time. <u>Constructed response items</u> may ask student to determine the end time and/or elapsed time. Both items must be in context.</p>

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<p><b>4.3.1</b> Describe, sketch, compare, and contrast plane geometric figures. (C)</p> <p><b>4.4.2</b> Represent concepts of similarity, congruence, and symmetry using transformational motion. (C, PS)</p> <p><b>4.4.4</b> Identify, describe, and classify two- and three-dimensional figures by relevant properties including number of vertices (corners), edges, and shapes of faces using models. (C, PS)</p> <p><b>4.4.6</b> Identify, describe, and draw geometric figures including points, intersecting lines, parallel lines, line segments, rays and angles. (C, PS)</p>	<p><b>4.3.1</b> Compare and contrast plane geometric figures.</p> <p><b>4.4.2</b> Identify congruent and/or similar geometric figures; identify examples of slides, rotations (turns) and flips.</p> <p><b>4.4.4</b> Identify, describe, and classify two- and three-dimensional figures by relevant properties including number of vertices (corners), edges, and shapes of faces using models.</p> <p><b>4.4.6</b> Identify geometric figures including points, intersecting lines, parallel lines, line segments, rays and angles.</p>	<p><b>4.3.1</b> Item can include the following geometric figures: circle, triangle, rectangle, square, pentagon, rhombus and trapezoid.</p> <p><b>4.4.2</b> Limit to <b>one</b> transformation only.</p> <p><b>4.4.4</b> Item must focus on attributes of the shape. Two-dimensional figures: circle, triangle, rectangle, square, rhombus, pentagon, hexagon, octagon and trapezoid. Three-dimensional figures: cube, sphere, rectangular prism, triangular prism, cylinder and square-based pyramid.</p>
	<p><b>Procedures</b></p>	
	<p><b>Problem Solving</b></p> <p><b>4.4.2</b> Represent concepts of similarity, congruence, and symmetry using transformational motion.</p> <p><b>4.4.4</b> Compare and contrast classes of two- and three-dimensional figures by relevant properties including number of vertices (corners), edges, and shapes of faces using models.</p> <p><b>4.4.6</b> Describe and draw geometric figures including points, intersecting lines, parallel lines, line segments, rays and angles.</p>	<p><b>4.4.2</b> Used only for <b>Constructed Response</b> items. Limit to 90 degrees in rotation. Must appear on a grid but not a coordinate grid. Limit to <b>one</b> transformation only.</p> <p><b>4.4.4</b> Used only for <b>Constructed Response</b> items. Item limited: Two-dimensional figures: circle, triangle, rectangle, square, rhombus, hexagon, octagon and trapezoid. Three-dimensional figures: cube, sphere, rectangular prism, triangular prism, cylinder and square-based pyramid.</p> <p><b>4.4.6</b> Used only for <b>Constructed Response</b> items.</p>

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Prioritized Standards		Knowledge/Skills Assessed	Item Specifications
<b>5.4.1</b> Collect, organize, display, describe, and interpret simple data using number lines, pictographs, bar graphs, and frequency tables. (C, P, PS)  <b>5.3.2</b> Use concepts of probability (e.g., impossible, likely, certain) to make predictions about future events. (C, PS )	Concepts	<b>5.4.1</b> Read simple data using number lines, pictographs, bar graphs, and frequency tables.  <b>5.3.2</b> Use the concepts of probability (e.g., impossible, likely, certain) in simple situations to make predictions about future events.	<b>5.4.1</b> Data displays should show an obvious representation of information.  <b>5.3.2</b> May also include as a fourth option “unlikely”.
	Procedures	<b>5.4.1</b> Organize, display and describe simple data using number lines, pictographs, bar graphs, and frequency tables.	<b>5.4.1</b> Organization of information may demand computation from the various displays.
	Problem Solving	<b>5.4.1</b> Create and interpret simple data using number lines, pictographs, bar graphs, and frequency tables.  <b>5.3.2</b> Use the concepts of probability (e.g., impossible, likely, certain) in simple situations to make predictions about future events.	<b>5.4.1</b> Use and create displays to solve simple problems.  <b>5.3.2</b> Used only for <b>Constructed Response</b> items. May also include as a fourth option “unlikely”.